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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/646,162

08/22/2003

Keith C. Thomas

P1976US00

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24333

7590

05/04/2005

EXAMINER

HUNNINGS, TRAVIS R

GATEWAY, INC.

ATTN: SCOTT CHARLES RICHARDSON

610 GATEWAY DRIVE

MAIL DROP Y-04

N. SIOUX CITY, SD 57049

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,162

Applicant(s)

THOMAS, KEITH C.

Examiner

Travis R Hunnings

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-7 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Bush et al. (Bush; US Patent 5,214,762) for the record.

Regarding claim 1, Bush discloses Disk Drive Activity Indicator that has the following claimed subject matters:

The claimed activity indicator visible from a front panel of the electronic device is met by the LED mounted on the front panel of a desktop computer (abstract);

The claimed activity indicator configured to provide a continuous indication of the presence of a first continuous operating condition associated with the electronic device is met by the LED being triggered in response to I/O operations involving the hard drive (abstract) and therefore by definition the LED is not triggered (turned off) during the period when the computer is on but there is no activity involving the hard drive.

Therefore the LED is continually indicating that there is no activity in the hard drive while it is off;

The claimed activity detection circuit coupled to the activity indicator is met by the activity indicator triggering logic (46);

The claimed activity detection circuit configured to generate an activity signal when detecting a second periodic operating condition associated with the electronic component and to communicate the activity signal to the activity indicator is met by the triggering logic on the motherboard detecting the I/O operations involving the hard drive and activating the LED by use of a retriggerable monostable multivibrator (abstract);

The claimed activity indicator being interrupted from continuously indicating the presence of the first continuous operating condition by the activity signal, thereby producing an indication of the second periodic operating signal is met by the LED being triggered (turning on) when the triggering logic detects an I/O function relating to the hard drive (abstract).

See figure 4.

The indications of the disclosed invention and claimed invention both correspond to the same events; the activation and non-activation of an electronic device such as a hard disk drive. The choice of indications themselves, whether they are continuously on and interrupted on activation or continuously off and turned on during activation, does not merit novel inventive material. Therefore it would have been obvious to one of ordinary skill in the art to have chosen either of the above mentioned indication choices.

Regarding claim 2, the claimed first continuous operating condition including a power-on operating condition is met by the LED not being triggered while the computer is powered-on and there is no access to the hard disk drive (see rejection to claim 1 stated above). The claimed second periodic operating condition including a hard disk

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drive operating condition is met by the LED being triggered when the hard drive is accessed (abstract).

Regarding claim 3, the claimed activity indicator including a single color LED is met by the LED mounted on the front panel of the desktop computer. The LED has only two possible states; an on-state and an off-state. Therefore it would have been obvious to one of ordinary skill in the art to use a single-color LED to reduce costs because the extra functionality of a multi-color LED would not be needed or desired.

Regarding claim 4, the claimed electronic device including a computer system and the component including a hard disk drive is met by the desktop computer having a hard disk drive activity indicator such as an LED mounted on the front panel remote from its associated hard disk drive (abstract).

Regarding claim 5, the claim is interpreted and rejected as claim 1 stated above.

Regarding claim 6, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 7, the claim is interpreted and rejected as claim 3 stated above.

3. New claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bush.

Regarding claim 8, the claimed alternate activity indicator wherein the continuous indication by the activity indicator is characterized by illumination of the activity indicator, and interruption of the continuous indication of the activity indicator is characterized by extinguishing the activity indicator would have been obvious to one of ordinary skill in the art. The indications of the disclosed invention and claimed invention both correspond to the same events; the activation and non-activation of an electronic device such as a hard disk drive. The choice of indications themselves, whether they are continuously on and interrupted on activation or continuously off and turned on during activation perform the same functionality and indication to the user. Therefore it would have been obvious to one of ordinary skill in the art to have chosen either of the above mentioned indication choices.

Regarding claim 9, the claim is interpreted and rejected as claim 1 stated above.

Regarding claim 10, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 11, the claim is interpreted and rejected as claim 4 stated above.

Regarding claim 12, the claim is interpreted and rejected as claim 8 stated above.

Regarding claim 13, the claimed alternate activity indicator wherein the storage device comprises a hard disk drive is met by the desktop computer having a hard disk drive activity indicator such as an LED mounted on the front panel remote from its associated hard disk drive (abstract). The claimed alternate activity indicator wherein the continuous indication by the activity indicator is characterized by illumination of the activity indicator, and interruption of the continuous indication of the activity indicator is characterized by extinguishing the activity indicator would have been obvious to one of ordinary skill in the art. The indications of the disclosed invention and claimed invention both correspond to the same events; the activation and non-activation of an electronic device such as a hard disk drive. The choice of indications themselves, whether they are continuously on and interrupted on activation or continuously off and turned on during activation perform the same functionality and indication to the user. Therefore it would have been obvious to one of ordinary skill in the art to have chosen either of the above mentioned indication choices.

Response to Arguments

4. Applicant's arguments filed 19 January 2005 have been fully considered but they are not persuasive. The applicant states the following arguments:

A: With respect to rejected claim 1, applicant argues that a user of the Bush system, viewing the LED of the disk drive activity indicator, does not know if the LED is “turned off” because there is presently no disk drive activity, or is “turned off” because the entire computer system is simply “turned off”. Absent the presence of some disk drive activity, the Bush indicator is not only “turned off” when there is no disk drive activity, but is also “turned off” when the computer is “turned off”. Thus, unless there is currently some disk drive activity actually occurring, one has no idea from the Bush indicator whether the computer is “on” or “off”.

B: With respect to rejected claim 1, applicant argues that the Bush patent would not lead one of ordinary skill in the art to consideration of operating conditions of both “an electronic device” and “a component of the electronic device”, as required by claim 1, and the rejection of the office action appears to reflect this, as only the operating states of the disk drive (and not the operating condition of the entire Bush computer system) are discussed. But, as noted above, the user of the Bush system is not provided with any information as to whether the computer system is turned on or turned off, unless, and only when, disk drive activity is actually occurring.

C: With respect to rejected claim 1, applicant argues that the claimed invention is not merely another equivalent “choice” that one of ordinary skill in the art could make for indicating disk drive activity, as the function of the claimed system provides additional capabilities as compared to the Bush system. In particular, the disk drive activity indicator system taught by Bush, and its manner of indicating disk drive activity, is completely incapable of providing an effective indication of the “power on” or “power off”

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status of the Bush system, as the disk drive activity indicator only illuminates during the time that disk drive accesses or interrupts are actually occurring. More significantly, Bush discloses that the disk drive activity indicator is "off" during times that specific disk activity is not occurring, but would also be "off" when the Bush system is powered down (and thus there is no disk activity because the power to the system is cut off). As a result, a user of the Bush system would not be able to look at its disk drive activity indicator and be able to tell if the system is powered up, unless disk activity happened to coincide with the precise time that the user looked at the disk drive activity indicator. In contrast, with the system of claim 1, one simply has to look at the claimed indicator to see if power is being supplied to the system, and if the indicator is periodically being interrupted (such as by flashing off), one also knows that disk activity is occurring.

D: With respect to rejected claim 1, applicant argues that one of ordinary skill in the art, considering the Bush patent and the knowledge that heretofore power indicators and disk activity indicators are separate elements, would presume that the Bush system employs a separate power on indicator, and thus any attempt to further modify the Bush disk drive activity indicator to also indicate the power status of the system would be superfluous.

Responses:

Regarding arguments A, B and D, claim 1 states "the activity indicator configured to provide a continuous indication of the presence of a first continuous operating condition associated with the electronic device" which is clearly met by the system of

Bush. The lack of indication as set forth by Bush is still a form of indication to the user that a continuous operating condition associated with the electronic device is occurring, specifically that currently no I/O writes are being performed by the computer (electronic device) on the hard drive (component of the electronic device). There is no mention in the claim language of claim 1 of a limitation to provide indication of a power on or power off condition.

Regarding argument C, again there is no mention in the claim language of claim 1 of a limitation to provide indication of a power on or power off condition. The indications of the disclosed invention and claimed invention both correspond to the same events; the activation and non-activation of an electronic device such as a hard disk drive. The choice of indications themselves, whether they are continuously on and interrupted on activation or continuously off and turned on during activation perform the same functionality and indication to the user. Therefore it would have been obvious to one of ordinary skill in the art to have chosen either of the above mentioned indication choices.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee, USPGPUB 2004/0164873

Hamamoto et al. USP 6,421,581

Lys et al. USP 6,717,276

Suzuki, USP 6,871,009

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

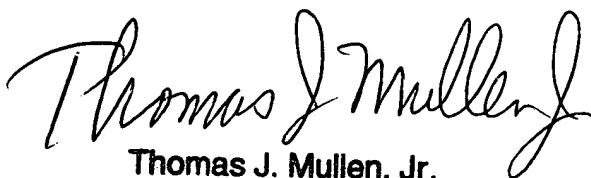
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


Thomas J. Mullen, Jr.
Primary Examiner
Art Unit 2632 5-2-05